 SEP 19 1960

	ENGINEERING STUDY ☐ CHANGE PROPOSAL ☒	LAC - 92
DATE 9/8/60	AFFECTS : WSPO ☒	PROJECT ☐

NAME OF MAJOR COMPONENT	PART OR LOWEST SUBASSEMBLY	PART NO. & MODEL OR TYPE
SEAT PACK	---	Q-342

TITLE OF PROPOSAL : **IMPROVED SEAT PACK ASSEMBLY**

NATURE OF PROPOSAL :

STATINTL

SEE PAGE 2

Our simple 2 page ECP's have now gotten up to 10 pages Ds. Que Sera, Sera ??" Kelly

REASON FOR PROPOSAL :

1. To incorporate improved seat pack deployment and life raft inflation provisions
2. To incorporate fiberglass survival gear container.
3. To incorporate an improved ship to kit disconnect coupling with automatic green apple actuation.
4. To incorporate thigh strap, harness and kit to man quick disconnect.

ES	ESTIMATED COST AND TIME INVOLVED : ADDITIONAL FUNDING REQUIRED :	**SEE PAGES 4 thru 6**
CP	ESTIMATED COST FOR KITS OR PARTS : ADDITIONAL FUNDING REQUIRED :	**SEE PAGE 6**

ITEMS AFFECTED BY PROPOSAL :

SAFETY	MISSION EFFEC-TIVENESS	PERFORM-ANCE	OPERATING PROCEDURE	INTER-CHANGE-ABILITY	WEIGHT OR WEIGHT & BALANCE	TOOLS & SUPPORT EQUIPMENT	MAINTE-NANCE PROCEDURE	SERVICE LIFE	FLIGHT MANUAL	MAINTE-NANCE MANUAL
☒	☒	☐	☒	☒	☐	☐	☐	☐	☐	☐

EST. MAN/HRS. REQ'D. TO ACCOMPLISH CHANGE IN FIELD

SOURCE OF PARTS FOR KIT LAC	AVAILABILITY 12 WEEKS AFTER APPROVAL of qualification tests by WADC of the first pack. (Deliver 2 packs per wk.)
DISPOSITION OF SPARES AFFECTED **SEE PAGE 6**	
INITIATED BY : LAC	APPROVED : WSPO PROJECT

NATURE OF PROPOSAL:

1. a. Replace present Q-198 Seat Packs with production Q-342 Seat Packs described in detail in Attachment #1.

b. Modify the aircraft by replacing the existing oxygen hose and ship to pack disconnect (half) on the right-hand side of the seat, with a new hose and disconnect (half) assembly on the left-hand side of the seat to mate with the Q-342 Seat Pack.

c. Modify the ejection seat assembly by relocating the back shelf to accommodate the new pack as well as the existing pack, and re-route the lap belt initiator hose to a more desirable position. NOTE: This modification may be performed at IRAN or in the field.

d. Modify the aircraft by replacing existing faceplate wiring with new wiring and break away connector. This change has been furnished to Customer No. 1 on Service Bulletin 479.

e. Prepare and issue service bulletins required to incorporate aircraft modifications noted for items b. and c. above. S/B 479 for d. above to be revised to include FOG aircraft, and reissued.

NATURE OF PROPOSAL: (cont)

f. Fabricate appropriate kits.

g. A Q-342 pack will be tested at Wright-Patterson AFB.

h. Q-342 packs to be furnished on the basis of Depot purchase request. To replace all present Q-198 Seat Packs will require approximately 110 Q-342 packs.

2. a. Installation of Q-342 Seat Packs requires use of either the new Q-336 Faceplate Assembly, or #290-1 (R. E. Darling Co.) Adapters with existing Q-240 Faceplates.

b. #290-1 Adapters may be ordered as personal equipment on Depot purchase request.

c. Rework of Q-240 Faceplates into Q-336 Faceplates including possible replacement of existing inflight feeding valve with new A. F. Valve, P/N 59B3728 can be accomplished on a turn-around basis at overhaul or other convenient time. Q-336 Faceplates can be supplied on all new procurement as desired on the basis of Depot purchase request.

Next 2 Page(s) In Document Exempt

GFE LIST

The parts listed below should be a part of the Q198 Seat Packs that are returned for disassembly.

F1263-3	Charging Valve	1 REQ.
F2050-1	Reducer	1 REQ.
F2400-6	Regulator	1 REQ.
F46400-13	Relief Valve	1 REQ.
Type L-2	Gage	1 REQ.

Approved For Release 2003/01/30 : CIA-RDP81B00878R000600030008-0

IMPROVED SEAT PACK (Q-342)

The Q-342 Seat Pack design incorporates developments considered essential based on conclusive service experience with existing seat packs. While the basic oxygen system components are unchanged except for location, the container, disconnects, and deployment sequences have been improved to provide increased reliability.

DESCRIPTION OF PACK

Packaging -

A fiberglass container, consisting of two halves, houses the oxygen system, the life raft, and the survival gear container. The upper half contains the complete oxygen installation, including controls and disconnect. The present contour top is retained with the addition of front extensions for more comfortable leg supports, and an extension at the back to provide parachute support. The lower half will contain the survival gear container and life raft. The survival gear, excluding life raft, will be packed in a waterproof bag usable as a rucksack. The life raft will be stowed separately from the survival gear container bag in the pack.

Oxygen System - (See Oxygen System Schematic - Figure I)

Reduced pressure oxygen is directed from the airplane system through the ship to pack disconnect. An emergency source of 96 cu. in. oxygen is supplied which is 1.7 times that in the system now in use in the existing Q-198 packs.

Quick Disconnects -

The Q-342 oxygen system incorporates two disconnects. The first disconnects the pack from the ships oxygen supply and at the same time automatically activates the emergency oxygen supply in the pack. The second disconnect will free the mask and suit hoses from the pack as the first operation in the sequence initiated by operation of the release handle controlling deployment of the kit.

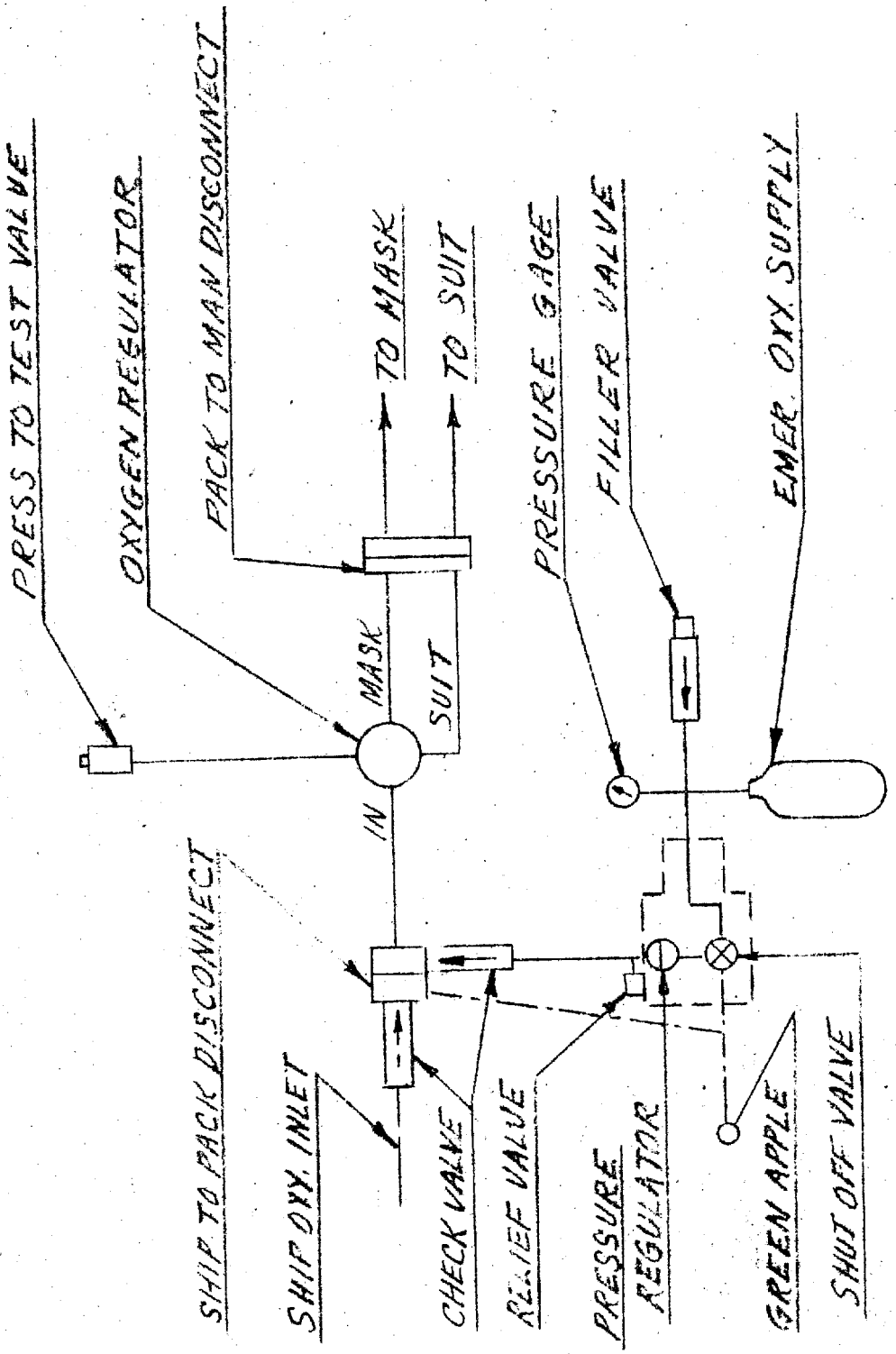
Release System -

A grip type release handle with trigger is provided on the right-hand side of the seat pack, replacing the zipper pull tab on the Q-198 Pack. Gripping action on this handle followed by pulling the handle off the seat pack initiates the following sequence:

1. Seat Ejection or Bailout
   a. Release of mask and suit hoses from the seat pack.
   b. Release of the lock which secures the halves of the fiberglass container together.
   c. Release of the side strap adjustors and leg strap attachments. The lanyard connected to the life raft and survival gear container remains attached to the left side strap adjustor when the ship to pack disconnect has been separated by seat ejection.
   d. The halves of the fiberglass container separate and fall away with the emergency oxygen supply, leaving the survival gear container, CO_2 bottle, and life raft (inflates) connected by lanyard to the crewman.

2. Emergency Ground Egress -

The sequence following operation of the release handle is the same as in seat ejection except that the ship to pack disconnect remains engaged causing the life raft and survival gear lanyard to separate from the left side strap adjustor, leaving the crewman completely free of the seat pack which stays in the seat.



FLOW SCHEMATIC

Q-342 SEAT PACK

FIG. 1